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EXAMINER	
THOMPSON, JAMES A	

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2624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/803,441	LEHMEIER ET AL.	
	Examiner	Art Unit	
	James A. Thompson	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-14,18-24 and 26-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-14,18-24 and 26-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 6-18 of the Appeal Brief filed 13 December 2005, with respect to the rejections of the claims under 35 USC §103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, new grounds of rejection is made in view of newly discovered prior art. The new grounds of rejection are set forth in detail in the prior art rejections below.

Additionally, the proposed amendments presented in the after-final amendment filed 15 August 2005 have been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3-4, 11 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Kohler (US Patent 6,618,499 B1).

Regarding claim 1: Kohler discloses scanning an object (column 4, lines 50-52 of Kohler) having a color to be matched

(column 5, lines 22-25 and lines 32-36 of Kohler) to produce a color image data signal representative of said object (column 5, lines 29-36 of Kohler); mapping said color image data signal to the defined color space to ascertain the corresponding color (column 9, line 63 to column 10, line 1 of Kohler); determining the identity of the corresponding color (figure 6(S603-S610); column 10, lines 1-7; and column 12, lines 58-64 of Kohler); and sending the identity of the corresponding color over a network to a website (column 4, lines 61-65 of Kohler). By sending the output image over a network to a website (column 4, lines 61-65 of Kohler), the determined identity of the corresponding color (figure 6(S603-S610); column 10, lines 1-7; and column 12, lines 58-64 of Kohler) is also sent over a network to a website since said identity is clearly needed to reproduce the color (column 5, lines 29-36 and column 13, lines 5-8 of Kohler).

Regarding claim 3: Kohler discloses that the identity of the corresponding color comprises a reference number (P') (column 12, lines 58-64 of Kohler), and wherein sending the identity of the corresponding color comprises sending the reference number associated with said corresponding color (column 4, lines 61-65 and column 13, lines 5-8 of Kohler). The printing is performed on the basis of the reference number P' (column 13, lines 5-8 of Kohler), which must therefore be sent over the network to the website to be printed (column 4, lines 61-65 of Kohler).

Regarding claim 4: Kohler discloses using said reference number to match a color with the color to be matched (column 13, lines 5-7 of Kohler).

Regarding claim 11: Kohler discloses that mapping said color image data signal to the defined color space to ascertain

the corresponding color comprises using a color look-up table (figures 5A-5B and column 8, lines 50-59 of Kohler).

Regarding claim 28: Kohler discloses a system (figure 1 and figure 2 of Kohler) comprising a storage device (column 4, lines 40-46 of Kohler) to store information representing a defined color space (column 5, lines 29-36 of Kohler); and a processor (figure 1(2) of Kohler) to receive color image data representing an object scanned by a scanner (column 4, lines 50-52 of Kohler); map the color image data to a corresponding color in the defined color space (column 9, line 63 to column 10, line 1 of Kohler); determine an identity of the corresponding color (figure 6(S603-S610); column 10, lines 1-7; and column 12, lines 58-64 of Kohler); and communicate the identity of the corresponding color to a website (column 4, lines 61-65 of Kohler). By sending the output image over a network to a website (column 4, lines 61-65 of Kohler), the determined identity of the corresponding color (figure 6(S603-S610); column 10, lines 1-7; and column 12, lines 58-64 of Kohler) is also sent over a network to a website since said identity is clearly needed to reproduce the color (column 5, lines 29-36 and column 13, lines 5-8 of Kohler).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

> Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 5-8, 10, 14, 19-20 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohler (US Patent 6,618,499 B1) in view of Ringland (US Patent 5,751,829).

Regarding claim 5: Kohler discloses that said reference number (P') is output (column 4, lines 61-65 and column 13, lines 5-8 of Kohler).

Kohler does not disclose expressly displaying said reference number.

Ringland discloses displaying said reference number (figure 6(614) and column 19, lines 12-15 of Ringland).

Kohler and Ringland are combinable because they are from the same field of endeavor, namely color image data processing and matching. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically display the reference number, as taught by Ringland. The motivation for doing so would have been to allow a user to search for a particular desired color based on the reference number (column 17, lines 7-13 of Ringland). Therefore, it would have been obvious to combine Ringland with Kohler to obtain the invention as specified in claim 5.

Regarding claim 6: Kohler does not disclose expressly selecting a color region on said object, the color region containing said color to be matched.

Ringland discloses selecting a color region on said object, the color region containing said color to be matched (column 19, lines 38-42 and lines 56-61 of Ringland).

Kohler and Ringland are combinable because they are from the same field of endeavor, namely color image data processing

and matching. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically select a color region of said object containing the color to be matched, as taught by Ringland. The motivation for doing so would have been to allow a user to concentrate on matching particularly desired sections of an object to the particular degree desired (column 19, lines 56-63 of Ringland). Therefore, it would have been obvious to combine Ringland with Kohler to obtain the invention as specified in claim 6.

Regarding claim 7: Kohler does not disclose expressly selecting a color region of said color image data signal, the color region containing said color to be matched.

Ringland discloses selecting a color region of said color image data signal, the color region containing said color to be matched (column 19, lines 38-42 and lines 56-61 of Ringland).

Kohler and Ringland are combinable because they are from the same field of endeavor, namely color image data processing and matching. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically select a color region of said color image data signal containing the color to be matched, as taught by Ringland. The motivation for doing so would have been to allow a user to concentrate on matching particularly desired sections of an object to the particular degree desired (column 19, lines 56-63 of Ringland). Therefore, it would have been obvious to combine Ringland with Kohler to obtain the invention as specified in claim 7.

Regarding claim 8: Kohler does not disclose expressly that said object comprises a plurality of colors, and further comprising selecting one of said plurality of colors as said color to be matched.

Ringland discloses a plurality of colors and selecting one of said plurality of colors as said color to be matched (column 17, lines 1-3 and lines 15-17 of Ringland).

Kohler and Ringland are combinable because they are from the same field of endeavor, namely image data processing and color matching. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to select a color to be matched from a plurality of colors, as taught by Ringland. The motivation for doing so would have been to allow a user to match the color of a particular item desired by a user as close as possible to the set of available colors provided by the vendor (column 17, lines 19-23 of Ringland). Therefore, it would have been obvious to combine Ringland with Kohler to obtain the invention as specified in claim 8.

Regarding claim 14: Kohler discloses a system (figure 1 and figure 2 of Kohler) comprising scanning apparatus (figure 1 (7) of Kohler), said scanning apparatus to scan an object having the color to be matched (column 5, lines 22-25 and lines 32-36 of Kohler), said scanner apparatus to produce a color image data signal representative of said object (column 5, lines 29-36 of Kohler); and a computer (figure 1(2) of Kohler) operatively associated with said scanner apparatus (see figure 1 of Kohler), said computer to: determine a specific color from a plurality of colors (column 10, lines 7-13 of Kohler); map a portion of said color image data signal corresponding to the specific color to the defined color space to ascertain an identity (P') of the corresponding color (column 9, line 63 to column 10, line 1 of Kohler); and output the identity of the corresponding color (column 12, lines 58-64 of Kohler).

Kohler does not disclose expressly that said computer, in response to user selection, selects a color region of the color image data signal representative of said object; determines a dominant color from a plurality of colors in the selected color region; and presents the identity of the corresponding color to a user; and that said mapped portion of said color image data signal corresponds to said dominant color.

Ringland discloses, in response to a user selection, selecting a color region of the color image data signal representative of said object (column 19, lines 38-42 of Ringland); determining a dominant color from a plurality of colors in the selected color region (column 19, lines 38-41 and lines 56-61 of Ringland); mapping a portion of said color image data signal corresponding to the dominant color (column 19, lines 38-42 of Ringland) to the defined color space to ascertain an identity of the corresponding color (column 19, lines 47-51 of Ringland); and presenting the identity of the corresponding color to a user (column 20, lines 9-14 of Ringland).

Kohler and Ringland are combinable because they are from the same field of endeavor, namely image data processing and color matching. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to allow a user to select a region from which a dominant color is determined and matched and then the identity of the corresponding matching color from the defined color space presented to the user, as taught by Ringland. The motivation for doing so would have been to allow the user to properly match a desired color with an available color palette (column 17, lines 18-23 of Ringland). Therefore, it would have been obvious to combine

Ringland with Kohler to obtain the invention as specified in claim 14.

Regarding claim 19: Kohler discloses at least one computer readable storage medium operatively associated with said computer (column 8, lines 50-59 of Kohler); and a color look-up table stored on the at least one computer readable storage device, said computer using the color look-up table when mapping said portion of the color image data signal to the defined color space to ascertain the identity of the corresponding color (figures 5A-5B and column 8, lines 50-59 of Kohler).

Regarding claims 10 and 20: Kohler does not disclose expressly that said defined color space comprises the Pantone Matching System.

Ringland discloses that said defined color space comprises the Pantone Matching System (column 17, lines 19-22 of Ringland).

Kohler and Ringland are combinable because they are from the same field of endeavor, namely image data processing and color matching. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically use the Pantone Matching System, as taught by Ringland. The suggestion for doing so would have been that any of a variety of possible color gamuts can be used in the system of Kohler (column 8, lines 17-21 and lines 28-32 of Kohler), and the Pantone Matching System is typical and well-known color gamut. Therefore, it would have been obvious to combine Ringland with Kohler to obtain the invention as specified in claims 10 and 20.

Regarding claim 30: Kohler discloses that the processor is adapted to map a portion of the color image data corresponding

to a specific color region in the defined color space (column 9, line 63 to column 10, line 1 of Kohler).

Kohler does not disclose expressly that the processor is adapted to, in response to user selection, select a color region of the color image data; and that said specific color region is said selected color region.

Ringland discloses, in response to user selection, selecting a color region of the color image data (column 19, lines 38-42 and lines 56-61 of Ringland).

Kohler and Ringland are combinable because they are from the same field of endeavor, namely image data processing and color matching. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to select a color region of the color image data in response to use selection, as taught by Ringland. Since the selected color region is to be matched (column 19, lines 56-61 of Ringland), the specific color region taught by Kohler would be the selected color region taught by Ringland. The motivation for doing so would have been to allow a user to concentrate on matching particularly desired sections of an object to the particular degree desired (column 19, lines 56-63 of Ringland). Therefore, it would have been obvious to combine Ringland with Kohler to obtain the invention as specified in claim 30.

6. Claims 9 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohler (US Patent 6,618,499 B1) in view of Lee (US Patent 5,528,703).

Regarding claim 9: Kohler does not disclose expressly that said object has texture; and processing said color image data

signal to remove the influence of said texture from the color image data signal.

Lee discloses that an object has texture (figure 2B and column 6, lines 58-60 of Lee); and processing said color image data signal to remove the influence of said texture from the color image data signal (figure 3(306) and column 6, lines 60-61 of Lee).

Kohler and Lee are combinable because they are from the same field of endeavor, namely digital image data processing for different types of objects. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to remove any texture of an object from the color image data signal, as taught by Lee. The motivation for doing so would have been that object texture detracts from the ability to determine the size, shape and location of objects of interest (column 6, lines 54-60 of Lee). Therefore, it would have been obvious to combine Lee with Kohler to obtain the invention as specified in claim 9.

Regarding claim 26: Kohler discloses an article (figure 1 and figure 2 of Kohler) comprising a storage device containing program code (column 4, lines 40-46 of Kohler) that when executed causes a system to receive color image data representing an object scanned by a scanner (column 4, lines 50-52 of Kohler); map the color image data to a corresponding color in a defined color space (column 9, line 63 to column 10, line 1 of Kohler); wherein the program code when executed causes the system to send an identity of the corresponding color over a network to a website (column 4, lines 61-65 of Kohler). By sending the output image over a network to a website (column 4, lines 61-65 of Kohler), the determined identity of the

corresponding color (figure 6(S603-S610); column 10, lines 1-7; and column 12, lines 58-64 of Kohler) is also sent over a network to a website since said identity is clearly needed to reproduce the color (column 5, lines 29-36 and column 13, lines 5-8 of Kohler).

Kohler does not disclose expressly that said object has texture; processing the color image data to remove influence of the texture, the processing producing a de-texturized color image data; and that the mapped color image data is de-texturized color image data.

Lee discloses that an object has texture (figure 2B and column 6, lines 58-60 of Lee); and processing the color image data to remove the influence of said texture, the processing producing de-texturized color image data (figure 3(306) and column 6, lines 60-61 of Lee).

Kohler and Lee are combinable because they are from the same field of endeavor, namely digital image data processing for different types of objects. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to remove any texture of an object from the color image data signal, as taught by Lee. Thus, the mapped color image data would then be de-texturized color image data. The motivation for doing so would have been that object texture detracts from the ability to determine the size, shape and location of objects of interest (column 6, lines 54-60 of Lee). Therefore, it would have been obvious to combine Lee with Kohler to obtain the invention as specified in claim 26.

7. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohler (US Patent 6,618,499 B1) in view of Bar (US Patent 5,506,946).

Regarding claim 12: Kohler discloses that said color image data comprises a plurality of pixels (column 4, lines 51-53 of Kohler). If an entire document is scanned in, then there are a plurality of pixels.

Kohler does not disclose expressly that each pixel has a red tristimulus value, a green tristimulus value, and a blue tristimulus value associated therewith, and wherein mapping said color image data signal to the defined color space to ascertain the corresponding color further comprises computing an average red tristimulus value, an average green tristimulus value, and an average blue tristimulus value from the red, green and blue tristimulus values of one or more of said plurality of pixels; and inputting the average red, green and blue tristimulus values into said color look-up table to obtain the corresponding color.

Bar discloses that each pixel has a red tristimulus value, a green tristimulus value, and a blue tristimulus value associated therewith (column 6, lines 3-9 of Bar); and computing an average red tristimulus value, an average green tristimulus value, and an average blue tristimulus value from the red, green and blue tristimulus values of one or more of said plurality of pixels (column 6, lines 7-9 and column 10, lines 52-56 of Bar).

Kohler and Bar are combinable because they are from the same field of endeavor, namely image data and color processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to compute the average RGB values for the color region, as taught by Bar, and thus use said average RGB values as the input to the look-up tables taught by

Kohler. The motivation for doing so would have been that the modification of the color occurs for the entire region based on the target color (column 5, lines 28-35 of Bar). Furthermore, the system of Kohler can be implemented using a wide variety of different color spaces (column 6, lines 28-31 of Kohler). Therefore, it would have been obvious to combine Bar with Kohler to obtain the invention as specified in claim 12.

Regarding claim 13: Kohler discloses that said color image data comprises a plurality of pixels (column 4, lines 51-53 of Kohler). If an entire document is scanned in, then there are a plurality of pixels.

Kohler further discloses that mapping said color image data signal to the defined color space to ascertain the corresponding color further comprises inputting the tristimulus values (H,L,C) of one or more of said plurality of pixels into said color look-up table to obtain one or more reference numbers (figures 5A-5B and column 8, lines 50-59 of Kohler).

Kohler does not disclose expressly that each pixel has a red tristimulus value, a green tristimulus value, and a blue tristimulus value associated therewith; that said input tristimulus values are specifically red tristimulus values, green tristimulus values, and blue tristimulus values; and computing an average reference number from said one or more reference numbers, the average reference number identifying said corresponding color.

Bar discloses computing the average colorimetric values for a specified color image data signal region (column 10, lines 52-56 of Bar).

Kohler and Bar are combinable because they are from the same field of endeavor, namely image data and color processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to compute the average colorimetric values for the color region, as taught by Bar, said average values being the reference number values (P') taught by Kohler. Since said reference number values are directly mapped to the color values (column 12, lines 50-64 of Kohler), computing said average colorimetric values and then computing the mapping of said colorimetric values will result in the computation of said average reference number. Further, said average reference number would therefore identify said corresponding color. The motivation for doing so would have been that the modification of the color occurs for the entire region based on the target color (column 5, lines 28-35 of Bar). Therefore, it would have been obvious to combine Bar with Kohler to obtain the invention as specified in claim 13.

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kohler (US Patent 6,618,499 B1) in view of Ringland (US Patent 5,751,829) and Lee (US Patent 5,528,703).

Regarding claim 18: Kohler discloses at least one computer readable storage device operatively associated with said computer (column 4, lines 40-46 of Kohler); and that computer readable program code is stored on said at least one computer readable storage device (column 4, lines 40-46 of Kohler).

Kohler in view of Ringland does not disclose expressly that said object has a texture; and that said computer readable program code is for removing the influence of the texture from said color image data signal.

Lee discloses that an object has texture (figure 2B and column 6, lines 58-60 of Lee); and processing said color image

data signal to remove the influence of said texture from the color image data signal (figure 3(306) and column 6, lines 60-61 of Lee).

Kohler in view of Ringland is combinable with Lee because they are from the same field of endeavor, namely digital image data processing for different types of objects. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to remove any texture of an object from the color image data signal, as taught by Lee, using computer readable program code, as taught by Kohler. The motivation for doing so would have been that object texture detracts from the ability to determine the size, shape and location of objects of interest (column 6, lines 54-60 of Lee). Therefore, it would have been obvious to combine Lee with Kohler in view of Ringland to obtain the invention as specified in claim 18.

9. Claims 21 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohler (US Patent 6,618,499 B1) in view of Knight (US Patent 6,344,853 B1).

Regarding claims 21 and 29: Kohler does not disclose expressly that sending the identity of the corresponding color to the website comprises sending the identity of the corresponding color to a shopping website for purchasing a product having the corresponding color.

Knight discloses that sending the identity of the corresponding color to the website (figure 3E(154) and column 10, lines 13-18 of Knight) comprises sending the identity of the corresponding color to a shopping website for purchasing a

product having a corresponding color (column 10, lines 13-20 of Knight).

Kohler and Knight are combinable because they are from the same field of endeavor, namely digital color image data processing, transmission and storage. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically send the corresponding color taught by Kohler to a shopping website for purchasing a product having a corresponding color, as taught by Knight. The motivation for doing so would have been to aid the purchase of particular products by allowing a buyer to select and choose between various possible colors in a set of products (column 3, lines 7-12 of Knight). Therefore, it would have been obvious to combine Knight with Kohler to obtain the invention as specified in claims 21 and 29.

10. Claims 22-24 and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohler (US Patent 6,618,499 B1) in view of Ringland (US Patent 5,751,829) and Liu (US Patent 5,594,807).

Regarding claims 22 and 31: Kohler discloses mapping said color image data signal to the defined color space to ascertain the corresponding color (column 9, line 63 to column 10, line 1 of Kohler).

Kohler in view of Ringland does not disclose expressly randomly selecting pixels in the selected color region; and mapping a portion of the color image data signal corresponding to the randomly selected pixels to the defined color space.

Liu discloses randomly selecting pixels in a selected color region (column 20, lines 11-16 of Liu).

Kohler and Liu are combinable because they are from the same field of endeavor, namely digital color image data processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to randomly select pixel from a color image, as taught by Liu. Thus, it will be the portion of the color image data signal corresponding to the randomly selected pixels taught by Liu that is mapped to the defined color space, as taught by Kohler. The motivation for doing so would have been to reduce the computational requirements for automatically finding an appropriate reference pixel for the image area (column 20, lines 18-23 of Liu). Computational optimization of this sort is a common reason to use Monte-Carlo randomization in computations. Therefore, it would have been obvious to combine Liu with Kohler to obtain the invention as specified in claims 22 and 31.

Regarding claims 23 and 32: Kohler does not disclose expressly determining a dominant color in the selected color region using histograms representing respective colors, wherein mapping said color image data signal to the defined color space comprises mapping a portion of the color image data signal corresponding to the determined dominant color to the defined color space.

Ringland discloses determining a dominant color from a plurality of colors in the selected color region (column 19, lines 38-41 and lines 56-61 of Ringland); and mapping a portion of said color image data signal corresponding to the determined dominant color (column 19, lines 38-42 of Ringland) to the defined color space (column 19, lines 47-51 of Ringland).

Kohler and Ringland are combinable because they are from the same field of endeavor, namely color image data processing

and matching. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to determine a dominant color and map the portion of said color image data signal corresponding to the determined dominant color to the defined color space, as taught by Ringland. The motivation for doing so would have been to allow the user to properly match a desired color with an available color palette (column 17, lines 18-23 of Ringland). Therefore, it would have been obvious to combine Ringland with Kohler.

Kohler in view of Ringland does not disclose expressly that said dominant color is selected using histograms representing respective colors.

Liu discloses determining a dominant color using histograms representing respective colors (figure 4; figure 5; and column 9, lines 56-67 of Liu).

Kohler in view of Ringland is combinable with Liu because they are from the same field of endeavor, namely digital color image data processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a histogram representing respective colors to select a dominant color, as taught by Liu. The motivation for doing so would have been to be able to determine to what extent particular pixel values in the color image data are true signal representations and to what extent each particular pixel value represents the image noise variations from "real" color and intensity values, thus providing a more genuine representation (column 9, lines 49-56 of Liu). Therefore, it would have been obvious to combine Liu with Kohler in view of Ringland to obtain the invention as specified in claims 23 and 32.

Regarding claim 24: Kohler in view of Ringland does not disclose expressly that the computer determines the dominant color in the selected color region using histograms representing the plurality of colors.

Liu discloses determining a dominant color using histograms representing respective colors (figure 4; figure 5; and column 9, lines 56-67 of Liu).

Kohler in view of Ringland is combinable with Liu because they are from the same field of endeavor, namely digital color image data processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a histogram representing respective colors to select a dominant color, as taught by Liu. The motivation for doing so would have been to be able to determine to what extent particular pixel values in the color image data are true signal representations and to what extent each particular pixel value represents the image noise variations from "real" color and intensity values, thus providing a more genuine representation (column 9, lines 49-56 of Liu). Therefore, it would have been obvious to combine Liu with Kohler in view of Ringland to obtain the invention as specified in claim 24.

11. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kohler (US Patent 6,618,499 B1) in view of Lee (US Patent 5,528,703) and Knight (US Patent 6,344,853 B1).

Regarding claim 27: Kohler in view of Lee does not disclose expressly that sending the identity of the corresponding color to the website comprises sending the identity of the corresponding color to a shopping website for purchasing a product having the corresponding color.

Knight discloses that sending the identity of the corresponding color to the website (figure 3E(154) and column 10, lines 13-18 of Knight) comprises sending the identity of the corresponding color to a shopping website for purchasing a product having a corresponding color (column 10, lines 13-20 of Knight).

Kohler in view of Lee is combinable with Knight because they are from the same field of endeavor, namely digital color image data processing, transmission and storage. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically send the corresponding color taught by Kohler to a shopping website for purchasing a product having a corresponding color, as taught by Knight. The motivation for doing so would have been to aid the purchase of particular products by allowing a buyer to select and choose between various possible colors in a set of products (column 3, lines 7-12 of Knight). Therefore, it would have been obvious to combine Knight with Kohler in view of Lee to obtain the invention as specified in claim 27.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Anoop K. Bhattarcharjya, US Patent 5,809,213, patented 15 September 1998, filed 12 July 1996.

b. Edward M. Granger, US Patent 6,005,968, patented 21 December 1999, filed 29 August 1997.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A.

Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Examiner
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10 February 2006

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